



## TRANSPORTATION CABINET

Frankfort, Kentucky 40622  
www.transportation.ky.gov/

December 9, 2015

CALL NO. 308  
CONTRACT ID NO. 152327  
ADDENDUM # 1

Subject: Owen County, FE01 094 0127 014-016  
Letting December 11, 2015

- (1) Revised - Traffic Control Plan - Pages 23-33 of 115
- (2) Revised - Detail Sheet - Page 50 of 115
- (3) Added - Note - Pages 1-2 of 2

Proposal revisions are available at <http://transportation.ky.gov/Construction-Procurement/>.

If you have any questions, please contact us at 502-564-3500.

Sincerely,

A handwritten signature in cursive script that reads "Rachel Mills".

Rachel Mills, P.E.  
Director  
Division of Construction Procurement

RM:ks  
Enclosures



An Equal Opportunity Employer M/F/D

## TRAFFIC CONTROL PLAN

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### TRAFFIC CONTROL GENERAL

Except as provided herein, maintain and control traffic in accordance with the Standard and Supplemental Specifications and the Standard and Sepia Drawings, current editions. Except for the roadway and traffic control bid items listed, all items of work necessary to maintain and control traffic will be paid at the lump sum bid price to "Maintain and Control Traffic".

Contrary to Section 106.01, furnish new, or used in like new condition, traffic control devices at the beginning of the work and maintain in like new condition until completion of the work.

### PROJECT PHASING & CONSTRUCTION PROCEDURES

Maintain at least one lane open to traffic each direction during the following times:

6:00 a.m. Monday through 6:00 p.m. Friday

Perform no work during the following days:

May 27-30, 2016	Memorial Day Weekend
July 4, 2016	Independence Day
July 8-July 10, 2016	Kentucky Speedway-NASCAR Sprint Cup Race
July 18-July 24, 2016	Owen County Fair (Limit work to 6 a.m. to 4 p.m.)
August 4-August 7, 2016	US 127 Yard Sale
September 2-September 5, 2016	Labor Day Weekend
November 24-November 28, 2016	Thanksgiving Day Weekend
December 23-26, 2016	Christmas Holiday
December 28, 2016-January 1, 2017	New Year's Holiday

The Engineer may specify additional days and hours when lane closures will not be allowed.

The Engineer may permit minor operations that do not require a lane closure and cause little disruption to traffic between the hours of 9:00 a.m. to 3:00 p.m. Monday through Friday.

On U.S. 127 maintain at least one lane of traffic in each direction at all times during construction. Provide a minimum clear lane width of 10 feet; however, provide for passage of vehicles of up to 16 feet in width. If traffic should be stopped due to construction operations, and a school bus on an official run arrives on the scene, make provisions for the passage of the bus as quickly as possible. Maintain traffic at all commercial entrances at all times by making half-pours.

The Department will allow night work on this project. Obtain the Engineer's approval of the

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method of lighting prior to performing night work.

The Department will allow a 30 day closure of Main Street (U.S. 127/KY. 22) between Adair Street and Seminary Street for all drainage and subgrade construction for Phases 1, 2 and 2A. See suggested detour routes shown on page 35.

Take these restrictions into account in submitting bid. The Department will not consider any claims for money or grant contract time extensions for any delays to the Contractor as a result of these restrictions.

### **PUBLIC INFORMATION PLAN**

This project is considered a significant project according to Section 112.03.12. The Department will prepare a public information plan. Submit a proposed schedule of lane closures to the Engineer for approval 14 calendar days prior to beginning work. Notify the Engineer immediately and obtain the Engineer's approval of any proposed deviations from the approved work schedule.

### **LANE CLOSURES**

Do not leave lane closures in place during non-working hours except for the minimum time required for JPC Pavement curing and strength testing. Open JPC Pavement on schedule.

### **SIGNS**

Contrary to section 112.04.02, only long term signs (signs intended to be continuously in place for more than 3 days) will be measured for payment; short term signs (signs intended to be left in place for 3 days or less) will not be measured for payment but will be incidental to Maintain and Control Traffic.

### **CHANGEABLE MESSAGE SIGNS**

Provide changeable message signs in advance of and within the project at locations determined by the Engineer. If work is in progress concurrently in both directions or if more than one lane closure is in place in the same direction of travel, provide additional changeable message signs as directed by the Engineer. Place changeable message signs one mile in advance of the anticipated queue at each lane closure. As the actual queue lengthens and/or shortens, relocate or provide additional changeable message signs so that traffic has warning of slowed or stopped traffic at least one mile but not more than two miles before reaching the end of the actual queue. The Engineer may vary the designated locations as the work progresses. The Engineer will

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determine the messages to be displayed. In the event of damage or mechanical/electrical failure, repair or replace the Changeable Message Sign within 24 hours. The Department will measure for payment the maximum number of Changeable Message Signs in concurrent use at the same time on a single day on all sections of the contract. The Department will measure individual Changeable Message Signs only once for payment, regardless of how many times they are set, reset, removed, and relocated during the duration of the project. The Department will not measure replacements for damaged Changeable Message Signs or for signs the Engineer directs be replaced due to poor condition or readability. Retain possession of the Changeable Message Signs upon completion of the work.

### **ARROW PANELS**

Use arrow panels as shown on the Standard Drawings or as directed by the Engineer. The Department will measure for payment the maximum number of arrow panels in concurrent use at the same time on a single day on all sections of the contract. The Department will measure for payment the maximum number of Changeable Message Signs in concurrent use at the same time on a single day on all sections of the contract. The Department will measure individual Arrow Panels only once for payment, regardless of how many times they are set, reset, removed, and relocated during the duration of the project. The Department will not measure replacements for damaged Arrow Panels or for panels signs the Engineer directs be replaced due to poor condition or readability for payment. Retain possession of the Arrow Panels upon completion of the work.

### **TEMPORARY ENTRANCES**

The Engineer will not require the Contractor to provide continuous access to farms, single family, duplex, or triplex residential properties during working hours; however, provide reasonable ingress and egress to each such property when actual operations are not in progress at that location. Limit the time during which a farm or residential entrance is blocked to the minimum length of time required for actual operations, not extended for the Contractor's convenience, and in no case exceeding six (6) hours. Notify all residents twenty-four hours in advance of any driveway or entrance closings and make any accommodations necessary to meet the access needs of disabled residents.

Except as allowed by the Phasing as specified above, maintain direct access to all side streets and roads, schools, churches, commercial properties and apartments or apartment complexes of four or more units at all times.

The Department will measure asphalt materials required to construct and maintain any temporary entrances which may be necessary to provide temporary access; however, the Department will not measure aggregates, excavation, and/or embankment, but shall be incidental to Maintain and Control Traffic. The Engineer will determine the type of surfacing material, asphalt or aggregate, to be used at each entrance.

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## **TRAFFIC SIGNALS AND INDUCTANCE LOOPS**

If needed by the Contractor's phasing, the Department will relocate signal heads, adjust signal timing and phasing, or place signal indications on flashing red/yellow as determined by the Engineer. Provide flaggers to supplement the adjusted signals as required by the work in progress. The Engineer will coordinate the Department's operations with the Contractor's work.

Install traffic signal inductance loops according to the Special Notes for Traffic Signal Preformed Loop Replacement. Coordinate the placement of the loops with the Engineer.

## **EXISTING TRAFFIC SIGNS**

All existing traffic signs shall be maintained and/or replaced during construction at the contractors expense.

## **BARRICADES**

The Department will not measure barricades used in lieu of barrels and cones for channelization or delineation, but shall be incidental to Maintain and Control Traffic according to Section 112.04.01.

The Department will measure barricades used to protect pavement removal areas in individual units Each. The Department will measure for payment the maximum number of barricades in concurrent use at the same time on a single day on all sections of the contract. The Department will measure individual barricades only once for payment, regardless of how many times they are set, reset, removed, and relocated during the duration of the project. The Department will not measure replacements for damaged barricades the Engineer directs to be replaced due to poor condition or reflectivity. Retain possession of the Barricades upon completion of the work.

## **PAVEMENT STRIPING**

If there is to be a deviation from the existing striping plan, the Engineer will furnish the Contractor a striping plan prior to placement of the JPC Pavement. Install Permanent and Temporary Striping according to Section 112 with the following exceptions:

1. Include edge lines in Temporary Striping; and
2. Place Temporary or Permanent Striping before opening a lane to traffic; and
3. For temporary striping, use an approved removable lane tape; and

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4. For Permanent Striping use Durable Tape Type 1.

## **INTERSECTION MARKINGS**

Consider the locations listed on the summary as approximate only. Prior to pavement removal, locate and document the locations of the existing markings. After resurfacing, replace the markings with Type 1 Tape Intersection Markings at their approximate existing locations or as directed by Engineer. Place markings not existing prior to resurfacing as directed by the Engineer.

## **PAVEMENT EDGE DROP-OFFS**

Do not allow a pavement edge between opposing directions of traffic or lanes that traffic is expected to cross in a lane change situation with an elevation difference greater than 1½". Place Warning signs (MUTCD W8-11 or W8-9A) in advance of and at 1500' intervals throughout the drop-off area. Dual post the signs on both sides of the traveled way. Wedge all transverse transitions between resurfaced and unresurfaced areas which traffic may cross with asphalt mixture for leveling and wedging. Remove the wedges prior to placement of the final surface course.

Protect pavement edges that traffic is not expected to cross, except accidentally, as follows:

Less than 2" - No protection required.

2" to 4" - Place plastic drums, vertical panels, or barricades every 50 feet. During daylight working hours only, the Engineer will allow the Contractor to use cones in lieu of plastic drums, panels, and barricades. Wedge the drop-off with DGA or asphalt mixture for leveling and wedging with a 1:1 or flatter slope in daylight hours, or 3:1 or flatter slope during nighttime hours, when work is not active in the drop-off area.

Greater than 4" - Protect drop-offs greater than 4 inches within 10 feet of traffic by placing drums, vertical panels, or barricades every 25 feet. The Engineer will not allow the use of cones in lieu of drums, vertical panels, or barricades for drop-offs greater than 4". Place Type III Barricades directly in front of the drop-off facing on coming traffic in both directions of travel. Provide warning signs as shown on the Standard Drawings or as directed by the Engineer. Refill drop-off areas greater than 4 inches with JPC Pavement the same day as excavated. The Engineer will not permit or allow drop-offs greater than 4 inches within 10 feet of traffic during non working hours.

Pedestrians & Bicycles - Protect pedestrian and bicycle traffic as directed by the engineer.

## **USE AND PLACEMENT OF CHANGEABLE MESSAGE SIGNS**

The following policy is based upon current Changeable Message Signs (CMS) standards and practice from many sources, including the Federal Highway Administration (FHWA), other State Departments of Transportation, and Traffic Safety Associations. It is understood that each CMS installation or use requires individual consideration due to the specific location or purpose. However, there will be elements that are constant in nearly all applications. Accordingly these recommended guidelines bring a level of uniformity, while still being open to regional experience and engineering judgment.

### **Application**

The primary purpose of CMS is to advise the driver of unexpected traffic and routing situations. Examples of applications where CMS can be effective include:

- Closures (road, lane, bridge, ramp, shoulder, interstate)
- Changes in alignment or surface conditions
- Significant delays, congestion
- Construction/maintenance activities (delays, future activities)
- Detours/alternative routes
- Special events with traffic and safety implications
- Crash/incidents
- Vehicle restrictions (width, height, weight, flammable)
- Advance notice of new traffic control devices
- Real-time traffic conditions (must be kept up to date)
- Weather /driving conditions, environmental conditions, Roadway Weather Information Systems
- Emergency Situations
- Referral to Highway Advisory Radio (if available)
- Messages as approved by the County Engineer's Office

### **CMS should not be used for:**

- Replacement of static signs (e.g. road work ahead), regulatory signage (e.g. speed limits), pavement markings, standard traffic control devices, conventional warning or guide signs.
- Replacement of lighted arrow board
- Advertising (Don't advertise the event unless clarifying "action" to be taken by driver – e.g. Speedway traffic next exit)
- Generic messages
- Test messages (portable signs only)
- Describe recurrent congestion (e.g. rush hour)
- Public service announcements (not traffic related)

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### **Messages**

Basic principles that are important to providing proper messages and insuring the proper operation of a CMS are:

- Visible for at least ½ mile under ideal daytime and nighttime conditions
- Legible from all lanes a minimum of 650 feet
- Entire message readable twice while traveling at the posted speed
- Nor more than two message panels should be used (three panels may be used on roadways where vehicles are traveling less than 45 mph). A panel is the message that fits on the face of the sign without flipping or scrolling.
- Each panel should convey a single thought; short and concise
- Do not use two unrelated panels on a sign
- Do not use the sign for two unrelated messages
- Should not scroll text horizontally or vertically
- Should not contain both the words left and right
- Use standardized abbreviations and messages
- Should be accurate and timely
- Avoid filler/unnecessary words and periods (hazardous, a, an, the)
- Avoid use of speed limits
- Use words (not numbers) for dates

### **Placement**

Placement of the CMS is important to insure that the signs is visible to the driver and provides ample time to take any necessary action. Some of the following principles may only be applicable to controlled access roadways. The basic principles of placement for a CMS are:

- When 2 signs are needed, place on same side of roadway and at least 1,000 feet apart
- Place behind semi-rigid/rigid protection (guardrail, barrier) or outside of the clear zone
- Place 1,000 feet in advance of work zone; at least one mile ahead of decision point
- Normally place on right side of roadway; but should be placed closest to the affected lane so that either side is acceptable
- Signs should not be dual mounted (one on each side of roadway facing same direction)
- Point trailer hitch downstream
- Secure to immovable object to prevent thief (if necessary)
- Do not place in sags or just beyond crest
- Check for reflection of sun to prevent the blinding of motorist
- Should be turned ~3 degrees outward from perpendicular to the edge of pavement
- Bottom of sign should be 7 feet above the elevation of edge of roadway
- Should be removed when not in use

### Standard Abbreviations

The following is a list of standard abbreviations to be used on CMS.

<u>Word</u>	<u>Abbrev.</u>	<u>Example</u>
Access	ACCS	ACCIDENT AHEAD/USE ACCS RD NEXT RIGHT
Alternate	ALT	ACCIDENT AHEAD/USE ALT RTE NEXT RIGHT
Avenue	AVE	FIFTH AVE CLOSED/DETOUR NEXT LEFT
Blocked	BLKD	FIFTH AVE BLKD/MERGE LEFT
Boulevard	BLVD	MAIN BLVD CLOSED/USE ALT RTE
Bridge	BRDG	SMITH BRDG CLOSED/USE ALT RTE
Cardinal Directions	N, S, E, W	N I75 CLOSED/ DETOUR EXIT 30
Center	CNTR	CNTR LANE CLOSED/MERGE LEFT
Commercial	COMM	OVRSZ COMM VEH/USE I275
Condition	COND	ICY COND POSSIBLE
Congested	CONG	HVY CONG NEXT 3 MI
Construction	CONST	CONST WORK AHEAD/EXPECT DELAYS
Downtown	DWNTN	DWNTN TRAF USE EX 40
Eastbound	E-BND	E-BND I64 CLOSED/DETOUR EXIT 20
Emergency	EMER	EMER VEH AHEAD/PREPARE TO STOP
Entrance, Enter	EX, EXT	DWNTN TRAF USE EX 40
Expressway	EXPWY	WTRSN EXPWY CLOSED/DETOUR EXIT 10
Freeway	FRWY, FWY	GN SYNDR FWY CLOSED/DETOUR EXIT 15
Hazardous Materials	HAZMAT	HAZMAT IN ROADWAY/ALL TRAF EXIT 25
Highway	HWY	ACCIDENT ON AA HWY/EXPECT DELAYS
Hour	HR	ACCIDENT ON AA HWY/2 HR DELAY
Information	INFO	TRAF INFO TUNE TO 1240 AM
Interstate	I	E-BND I64 CLOSED/DETOUR EXIT 20
Lane	LN	LN CLOSED/MERGE LEFT
Left	LFT	LANE CLOSED/MERGE LFT
Local	LOC	LOC TRAF USE ALT RTE
Maintenance	MAINT	MAINT WRK ON BRDG/SLOW
Major	MAJ	MAJ DELWAYS I75/USE ALT RTE

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Mile	MI	ACCIDENT 3 MI AHEAD/ USE ALT RTE
Minor	MNR	ACCIDENT 3 MI MNR DELAY
Minutes	MIN	ACCIDENT 3 MI/30 MIN DELAY
Northbound	N-BND	N-BND I75 CLOSED/ DETOUR EXIT 50
Oversized	OVRSZ	OVRSZ COMM VEH/USE I275 NEXT RIGHT
Parking	PKING	EVENT PKING NEXT RGT
Parkway	PKWY	CUM PKWAY TRAF/DETOUR EXIT 60
Prepare	PREP	ACCIDENT 3 MIL/PREP TO STOP
Right	RGT	EVENT PKING NEXT RGT
Road	RD	HAZMAT IN RD/ALL TRAF EXIT 25
Roadwork	RDWK	RDWK NEXT 4 MI/POSSIBLE DELAYS
Route	RTE	MAJ DELAYS I75/USE ALT RTE
Shoulder	SHLDR	SHLDR CLOSED NEXT 5 MI
Slippery	SLIP	SLIP COND POSSIBLE/ SLOW SPD
Southbound	S-BND	S-BND I75 CLOSED/DETOUR EXIT 50
Speed	SPD	SLIP COND POSSIBLE/ SLOW SPD
Street	ST	MAIN ST CLOSED/USE ALT RTE
Traffic	TRAF	CUM PKWAY TRAF/DETOUR EXIT 60
Vehicle	VEH	OVRSZ COMM VEH/USE I275 NEXT RIGHT
Westbound	W-BND	W-BND I64 CLOSED/DETOUR EXIT 50
Work	WRK	CONST WRK 2MI/POSSIBLE DELAYS

**Standard Abbreviations**

The following is a list of standard abbreviations to be used on CMS.

Certain abbreviations are prone to inviting confusion because another word is abbreviated or could be abbreviated in the same way. DO NO USE THESE ABBREVIATIONS.

<u>Abbrev.</u>	<u>Intended Word</u>	<u>Word Erroneously Given</u>
ACC	Accident	Access (Road)
CLRS	Clears	Colors
DLY	Delay	Daily
FDR	Feeder	Federal
L	Left	Lane (merge)

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LOC	Local	Location
LT	Light (traffic)	Left
PARK	Parking	Park
POLL	Pollution (index)	Poll
RED	Reduce	Red
STAD	Stadium	Standard
TEMP	Temporary	Temperature
WRNG	Warning	Wrong

**TYPICAL MESSAGES**

The following is a list of typical messages used on CMS. The list consists of the reason or problem that you want the driver to be aware of and the action that you want the driver to take.

**Reason/Problem**

ACCIDENT  
 ACCIDENT/XX MILES  
 XX ROAD CLOSED  
 XX EXIT CLOSED  
 BRIDGE CLOSED  
 BRIDGE/(SLIPPERY, ICE, ETC.)  
 CENTER/LANE/CLOSED  
 DELAY(S), MAJOR/DELAYS  
 DEBRIS AHEAD  
 DENSE FOG  
 DISABLED/VEHICLE  
 EMER/VEHICLES/ONLY  
 EVENT PARKING  
 EXIT XX CLOSED  
 FLAGGER XX MILES  
 FOG XX MILES  
 FREEWAY CLOSED  
 FRESH OIL  
 HAZMAT SPILL  
 ICE  
 INCIDENT AHEAD  
 LANES (NARROW, SHIFT, MERGE, ETC.)  
 LEFT LANE CLOSED  
 LEFT LANE NARROWS  
 LEFT 2 LANES CLOSED  
 LEFT SHOULDER CLOSED  
 LOOSE GRAVEL

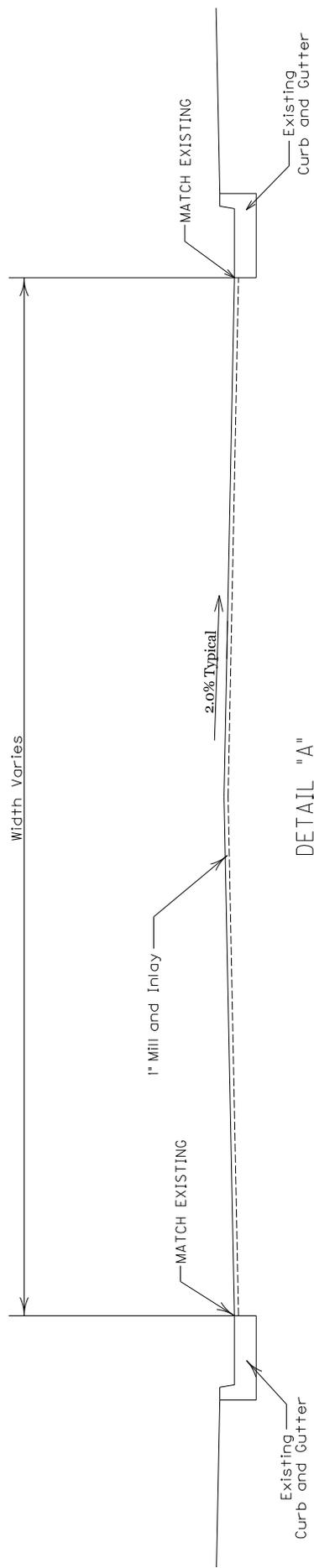
**Action**

ALL TRAFFIC EXIT RT  
 AVOID DELAY USE XX  
 CONSIDER ALT ROUTE  
 DETOUR  
 DETOUR XX MILES  
 DO NOT PASS  
 EXPECT DELAYS  
 FOLLOW ALT ROUTE  
 KEEP LEFT  
 KEEP RIGHT  
 MERGE XX MILES  
 MERGE LEFT  
 MERGE RIGHT  
 ONE-WAY TRAFFIC  
 PASS TO LEFT  
 PASS TO RIGHT  
 PREPARE TO STOP  
 REDUCE SPEED  
 SLOW  
 SLOW DOWN  
 STAY IN LANE  
 STOP AHEAD  
 STOP XX MILES  
 TUNE RADIO 1610 AM  
 USE NN ROAD  
 USE CENTER LANE  
 USE DETOUR ROUTE

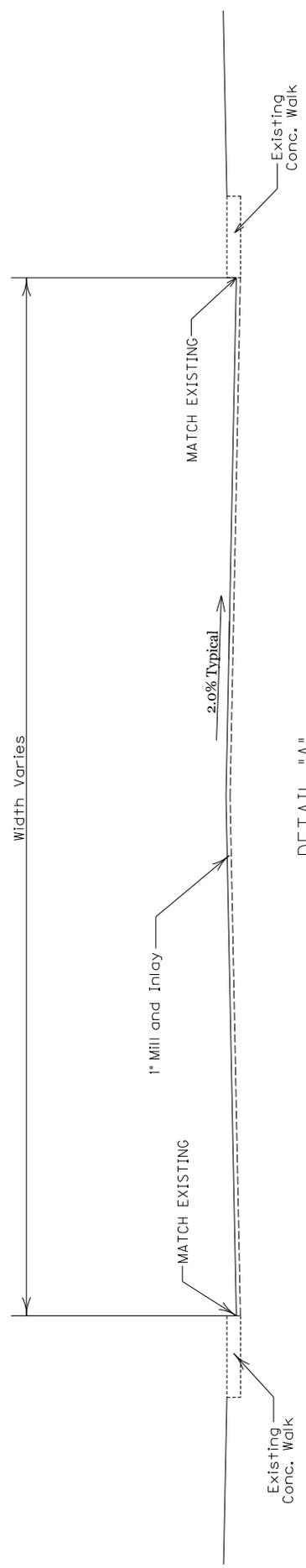
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MEDIAN WORK XX MILES	USE LEFT TURN LANE
MOVING WORK ZONE, WORKERS IN ROADWAY	USE NEXT EXIT
NEXT EXIT CLOSED	USE RIGHT LANE
NO OVERSIZED LOADS	WATCH FOR FLAGGER
NO PASSING	WORKERS AHEAD
NO SHOULDER	WORK ZONE XX MILES
ONE LANE BRIDGE	
PEOPLE CROSSING	
RAMP CLOSED	
RAMP (SLIPPERY, ICE, ETC.)	
RIGHT LANE CLOSED	
RIGHT LANE NARROWS	
RIGHT SHOULDER CLOSED	
ROAD CLOSED	
ROAD CLOSED XX MILES	
ROAD (SLIPPERY, ICE, ETC.)	
ROAD WORK	
ROAD WORK (OR CONSTRUCTION) (TONIGHT, TODAY, TOMORROW, DATE)	
ROAD WORK XX MILES	
SHOULDER (SLIPPERY, ICE, SOFT, BLOCKED, ETC.)	
NEW SIGNAL XX MILES	
SLOW 1 (OR 2) - WAY TRAFFIC	
SOFT SHOULDER	
STALLED VEHICLES AHEAD	
TRAFFIC BACKUP	
TRAFFIC SLOWS	
TRUCK CROSSING	
TRUCKS ENTERING	
TOW TRUCK AHEAD	
UNEVEN LANES	
WATER ON ROAD	
WET PAINT	

COUNTY OF	ITEM NO.	SHEET NO.
OWEN		26



DETAIL "A"  
(Mill and Inlay-Curb & Gutter Section)  
Sta. 12+88 to 24+33



DETAIL "A"  
(Mill and Inlay-Non Curb & Gutter Section)  
Sta. 29+49 to 35+96.6

PAVEMENT DETAIL

### Ride Quality Table

Achieve an IRI equal to or lower than the target IRI listed below for each section.

NORTHBOUND			
Start MP (mile)	Stop MP (mile)	Length (ft)	Ride Spec Rec
14.950	15.050	528	157
15.050	15.150	528	130
15.150	15.250	528	93
15.250	15.294	238	

SOUTHBOUND			
Start MP (mile)	Stop MP (mile)	Length (ft)	Ride Spec Req
15.250	15.150	528	112
15.150	15.050	528	92
15.050	14.950	528	124
14.950	14.910	211	

## RIDE QUALITY ADJUSTMENT SCHEDULE FE01 094 0127 014-016

Contrary to Section 501.05.02, the Department will calculate a Ride Quality Adjustment payment according to the following schedule:

ACHIEVED IRI	PAY VALUE ADJUSTMENT <sup>(1)</sup>
81 or Less	\$500
82	\$420
83	\$350
84	\$280
85	\$220
86	\$170
87	\$120
88	\$80
89	\$45
90	\$20
91 to Target IRI	\$0
Target IRI +1	(\$20)
Target IRI +2	(\$45)
Target IRI +3	(\$80)
Target IRI +4	(\$120)
Target IRI +5	(\$170)
Target IRI +6	(\$220)
Target IRI +7	(\$280)
Target IRI +8	(\$350)
Target IRI +9	(\$420)
Target IRI +10	(\$500)
Target IRI +11 or Higher	CORRECTIVE WORK <sup>(2)</sup>

<sup>(1)</sup> Contractor may correct areas to achieve a positive adjustment.

<sup>(2)</sup> When it is in the best interest of the Department, a minimum pay value deduction of \$750 per 0.1-lane-mile section may be applied in lieu of corrective work.